

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of the claims in the application. Claims 1, 5 and 6 are amended; claims 2-4 and 7-18 are cancelled, and new claims 19-35 are added.

1. (*Currently Amended*) A multi-database query system ~~which queries~~ for querying a plurality of biological databases ~~and servers~~ containing biological data, comprising:
an input which receives ~~queries~~ a query in a structured form;
a processor for receiving the query and dividing the query into a plurality of query parts, wherein the plurality of query parts corresponds to at least one database of the plurality of biological databases and at least one condition statement; and
a at least one translation server which translates at least one ~~at least a part of a received query~~ at least one of the plurality of query parts into commands recognized by a data manipulation server associated with a biological database of the plurality of biological databases and returns results of the query parts to the processor;
wherein the processor determines whether the query includes unprocessed parts and, if the query has unprocessed parts, sends at least one unprocessed part to the at least one translation server, repeating the process until all unprocessed parts are processed, and wherein the processor further applies one or more conditions within the at least one condition statement to the processed query and generates a user output meeting the one or more conditions.

Claims 2-4 (*Cancelled*)

5. (*Currently amended*) A The system according to ~~any one of claims 1-4~~ claim 1, wherein the translation server models results from the data manipulation server into database objects.

6: (*Currently amended*) A The system according to ~~any one of claims 1-5~~ claim 1, wherein the data manipulation server comprises a server ~~which~~ that receives input from a least two different sources.

Claims 7-18 (*Cancelled*)

19. (*New*) The system according to claim 1, further comprising a directory in communication with the processor, wherein the processor refers to the directory to determine how to divide the query.

20. (*New*) The system according to claim 1, wherein the at least one translation server comprises at least two translation servers associated with at least one local biological database and at least one remote database.

21. (*New*) The system according to claim 20, wherein the query parts are sent to the at least two translation servers in parallel.

22. (*New*) The system according to claim 1, wherein the data manipulation server is a homology search engine.

23. (*New*) The system according to claim 22, wherein the homology search engine is BLAST.

24. (*New*) The system according to claim 1, wherein the processor further determines cross-dependence of the query parts and, if cross-dependence is found, further divides the query parts into independent parts and dependent parts.

25. (*New*) The system according to claim 24, wherein the query parts are cross-dependent and are sent to at least two translation servers sequentially so that independent parts are sent before dependent parts.

26. (*New*) A method of querying a multi-database query system having a plurality of biological databases containing biological data, comprising:

- (a) inputting a query in a structured form;
- (b) receiving the query in a processor and dividing the query into a plurality of query parts, wherein the plurality of query parts corresponds to at least one database of the plurality of biological databases and at least one condition statement;
- (c) using at least one translation server, translating at least one of the plurality of query parts into commands recognized by a data manipulation server associated with a biological database of the plurality of biological databases and returns results of the query parts to the processor,
- (d) determining whether the query includes unprocessed parts and, if the query has unprocessed parts, sending at least one unprocessed part to the at least one translation server;
- (e) repeating steps (c) and (d) until all unprocessed parts of the query are processed;
- (f) applying one or more conditions within the at least one condition statement to the processed query; and
- (g) generating a user output meeting the one or more conditions,

27. (*New*) The method according to claim 26, wherein the at least one translation server models results from the data manipulation server into database objects.

28. (*New*) The method according to claim 26, wherein the data manipulation server comprises a server that receives input from a least two different sources.

29. (*New*) The method according to claim 26, further comprising consulting a directory in communication with the processor to determine how to divide the query.

30. (*New*) The method according to claim 26, wherein the at least one translation server comprises at least two translation servers associated with at least one local biological database and at least one remote database.

31. (*New*) The method according to claim 26, wherein the data manipulation server is a homology search engine.

32. (*New*) The method according to claim 31, wherein the homology search engine is BLAST.

33. (*New*) The method according to claim 26, wherein the query parts are sent to at least two translation servers in parallel.

34. (*New*) The method according to claim 26, further comprising determining cross-dependence of the query parts and, if cross-dependence is found, dividing the query parts into independent parts and dependent parts.

35. (*New*) The method according to claim 26, wherein the query parts are cross-dependent and further comprising sending to at least two translation servers sequentially with independent parts are sent before dependent parts.